

REMARKS

This paper is in response to the Office Action dated April 1, 2004. The period for response has been extended until August 1, 2004. Accordingly, this response is timely.

Claims in the Application.

Claims 1-20 are pending in this Application. Claims 1-3, 7, 12, 14, 16, and 18-20 have been rejected. Claims 4-6, 8-11, 13, 15, and 17 have been objected to. The Applicants respectfully request an allowance of the claims as amended. The Examiner has also objected to the Specification.

Objection to the Specification.

The Examiner has objected to the Specification for informalities. Each change has been made in the amendments above without the introduction of new matter. Reconsideration is respectfully requested.

Rejection under 35 U.S.C. § 103(a).

The Examiner has rejected Claims 1-3, 7, 14, 16, and 18-20 have been rejected under 35 U.S.C. § 103(a) in light of U.S. Patent No. 5,388,960 ("Suzuki") in view of U.S. Patent No. 6,487,863 ("*Chen*"). To properly reject a claim under Section 103, the Examiner must view the claimed invention as a whole. *See, e.g., Hartness Int'l Inc. v. Simplimatic Eng'g Co.*, 819 F.2d 1100, 1108 (Fed. Cir. 1987); *see also In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (holding that "[i]t is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious."). A prior art reference may be considered to teach away when "a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994).

Suzuki fails to teach the use of nitrogen. Instead, *Suzuki* focuses on the use of air for cooling. This method was noted for its deficiencies in the Background of the Invention starting on page 5, line 23 of the present application. *Suzuki* fails to teach the inventive use of nitrogen

and *Suzuki*'s teaching is inappropriate because air at near ambient pressure does not provide enough heat transport and non-uniform distribution of cooling, in addition to the other reasons noted in the Background of the Invention. As noted on page 6, lines 5-11:

This method is also deficient because of limited accessibility, limited compressed air capacity, and non-uniform distribution of cooling throughout the turbine. These three factors result in not only a lack of cooling capacity but problems with shell humping and non-uniform component cooling. Moreover, two limitations of forced cooling using air injection are adequate cooling capacity and uniform cooling. This method has only been shown to save minimal time in the shut down of steam turbines.

Background, p. 6, ll. 5-11. For these reasons, *Suzuki* fails to teach the inventive aspects of the claims as filed and actually teaches away from the present invention.

Chen also teaches away from the inventive aspects as claimed in the present application and does not cure the deficiencies of *Suzuki*. *Chen* specifically teaches the cooling of a gas turbine and its disclosure is limited accordingly. See *Chen*, *Abstract*. Moreover, *Chen* focuses its concerns with issues related to combustion in a gas turbine by stating:

It is not practical to introduce the nitrogen directly into the compressed air plenum 32 surrounding the combustion and transition because that would substantially dilute the compressed air entering the combustion, which is necessary for the combustion process. However, the combustion shell can include a closed cooling path and the additional cooling leg 80 can be connected directly to that cooling path as well as to the transition and first stage so that the nitrogen would be introduced into the working gas downstream of the combustion zone in the combustion 34.

Chen, Col. 4, ll. 56-66. *Chen*'s disclosure is focused solely on the noncombustive properties of nitrogen and do not provide any motivation to combine its teaching outside of the combustive environment. Because the teaching of *Chen* is silent on the use of nitrogen on a steam turbine, and actually teaches away from the use of nitrogen as claimed in the present invention, *Chen* cannot cure the deficiencies of *Suzuki* and reconsideration is respectfully requested.

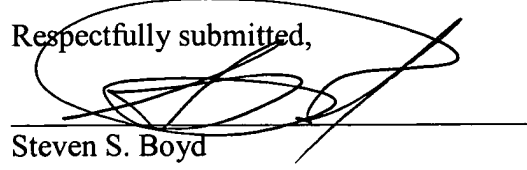
CONCLUSION

For the stated reasons, reconsideration is respectfully requested. The Applicants have extended the period of response for one month until August 1, 2004. Though the Applicants do not believe that any additional fee is necessary, the Commissioner is hereby authorized to charge or credit the Deposit Account No. 12-1322 of Locke Liddell & Sapp LLP under Order No.

020569-01900. In light of the foregoing remarks, the claims of the application have been distinguished over the cited references. The Examiner is requested to contact the undersigned at (713) 226-1218 should he deem it necessary to advance the prosecution of this application.

Date: July 19, 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to be "S. Boyd", is written over a horizontal line.

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